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In this issue:

- PTSD and Intimate Relationships
- NCPTSD Women's Health Sciences Division: Current Research and Activities

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PTSD AND INTIMATE RELATIONSHIPS

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Most theory, empirical research, and treatments for PTSD have focused on the individual - neurobiological abnormalities, psychophysiological reactions, personality traits, and modifications in individual cognitions and behaviors have been prime targets for study and intervention. There is growing interest in understanding the interpersonal nature of PTSD to inform theory, as well as prevention and treatment efforts. This emphasis is especially timely, in lieu of the widespread effects of recent natural disasters on the most basic family functions, as well as current military operations. It is especially imperative that we appreciate the intimate relationship facets of trauma for our current military personnel, because compared to previous conflicts, there is a greater proportion of them who are married (over 50%), and many more who are in committed intimate relationships.

This article serves as a guide to the significant research contributions that have uncovered the intimate relationship problems associated with PTSD and the factors involved in these associations, as well as the mental health functioning of partners of those with PTSD. The various interventions including intimate others that have been developed and limitedly tested to stave off PTSD or ameliorate symptoms once they develop are also highlighted. We conclude the article with areas in need of further research and directions for furthering the study of intimate relationships and PTSD.

What Are the Intimate Relationship Problems Associated With PTSD?

Several epidemiological studies have established the association between PTSD and intimate relationship problems in the community. Using data from one of the most well known of them, the National Comorbidity Study, Whisman (1999) found that those with PTSD are equally likely as those without PTSD to be married at any one point in time (i.e., approximately 50% are legally married), but those diagnosed with PTSD are between 3- and 6-times more likely to divorce than those without PTSD. In this study, PTSD was the second most likely diagnosis to be associated with marital distress. A PTSD diagnosis was associated with a nearly 4-times greater likelihood of marital distress, second only to the 5.7-times greater likelihood of marital distress with a dysthymia diagnosis.

Within specific traumatized populations, the intimate relationship problems of veterans have received the most attention. The National Vietnam Veterans Readjustment Study (NVVRS) provides some of the most conclusive information through its interview of a subsample of male veterans and their female partners. In their seminal article from this study, Jordan and colleagues (1992) found that male Vietnam veterans diagnosed with PTSD and their partners reported more numerous and severe relationship problems, greater parenting problems, and generally poorer family adjustment compared with veterans without PTSD and their partners. They also found that one-third of those with PTSD engaged in intimate partner violence over the previous year, compared with a 13.5% rate for those without PTSD. Later studies expounded upon these descriptions.

Several studies have provided a fine-grained description of the high rates of violence and hostility in families of Vietnam veterans with PTSD compared to those without PTSD, and established that the severity of aggressive behavior is associated with PTSD symptom severity (Byrne & Riggs, 1996; Glenn et al., 2002). Riggs and colleagues (1998) demonstrated that Vietnam veterans with PTSD are also less self-disclosing and expressive with their partners, and have more anxiety related to intimacy compared with those without PTSD. Cook and colleagues (2004) extended these findings beyond Vietnam veterans in their examination of World War II Ex-Prisoners of War (POWs). Ex-POWs with PTSD report poorer adjustment and communication with their partners, and more difficulties with intimacy compared to ex-POWs without PTSD.

What Are the Mental Health Issues of Partners of Those With PTSD?

There are a few empirical studies, and several anecdotal articles, describing the mental health issues of intimate partners of those with PTSD. Most of the empirical studies have compared spouses/partners of veterans with and without PTSD. For example, Jordan et al. reported that partners of veterans with PTSD reported lower happiness and life satisfaction and higher demoralization relative to partners of veterans without the disorder. Further, about half of the partners of PTSD-positive veterans endorsed feeling "on the verge of a nervous breakdown".

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Beckham et al. (1996) have studied the construct of "caregiver burden" in female partners of Vietnam veterans with PTSD. This construct refers to difficulties in caring for a partner with the functional and behavioral impairments associated with PTSD. They found that caregiver burden had a direct correlation with veteran PTSD symptom severity in their sample, and explained a significant proportion of the variance in the partners' adjustment (i.e., psychological distress, dysphoria, anxiety) in separate cross-sectional analyses. Further, these researchers found that increases in caregiver burden over time predicted poorer caregiver adjustment.

Figley (1993) discussed the effects of military deployments and trauma on the families of those at war, with a particular focus on the first Gulf War. He applied the construct of "secondary traumatization" to partners of those with PTSD. Secondary traumatization is believed to occur when the trauma experienced by one partner is transmitted to the other through knowledge of the trauma and caring for, or empathizing with, a traumatized partner. A possible consequence of secondary traumatization may be the development of PTSD symptoms in the intimate partner, although more general distress and mental health symptoms are argued to be evidence of secondary traumatization. A recent study conducted with a large community sample of Dutch World War II survivors is posited to support secondary traumatization processes. This study revealed that PTSD symptoms experienced by one partner were associated with PTSD symptoms experienced by the other partner. This association was maintained even when each partners' trauma experiences were included in the analyses ((Bransen et al., 2002). Although suggestive of some partner-shared pathological process, the specific mechanisms thought to underlie secondary traumatization are difficult to empirically verify.

What Factors Might Explain the Association Between PTSD and Intimate Relationship Problems?

There have been a few attempts to move beyond a description of the intimate relationship problems associated with PTSD to more fully capture the complexity of these associations. Most of the research in this area has focused on the relationship between PTSD and intimate partner physical violence. For example, Orcutt, King, and King (2003) used structural equation modeling to examine the relationships among early life stressors, war-zone stressor variables, PTSD symptoms, and partner violence among an NVVRS subsample. Results indicated that early family dysfunction, childhood antisocial behavior, combat exposure, and perceived threat in the war zone were related to higher partner violence, primarily through their relationship to PTSD symptoms. This paper further corroborates the role of PTSD in intimate violence perpetration, and makes an important contribution in examining alternative explanations of the relationship between PTSD and intimate violence.

Taft et al. (2005) examined potential risk factors for partner violence among veterans with PTSD by compar-

ing partner violent veterans with PTSD with nonviolent veterans with PTSD and partner violent veterans without PTSD in an NVVRS subsample. With the exception of childhood abuse in the family of origin, PTSD-positive partner violent men were the highest on every risk factor of interest. Greater exposure to atrocities in the war zone, more comorbid psychopathology (major depression and drug abuse/dependence), and more marital problems, in particular, increased risk for partner violence among those with PTSD. This study also employed a classification tree analysis, which suggested that risk for partner violence was especially high among PTSD-positive veterans with both low marital satisfaction and alcohol abuse/dependence.

With regard to the specific PTSD symptoms associated with intimate relationship problems, Savarese, Suvak, King, and King (2001) found that veterans' PTSD hyperarousal symptoms were associated with reports of partner violence and psychological aggression perpetration in the NVVRS subsample that Orcutt et al. (2003) utilized. These associations were also strengthened by alcohol consumption. While hyperarousal symptoms appear to be particularly strongly associated with violence perpetration, the avoidance/numbing cluster seems to be most strongly associated with the ability of veterans diagnosed with PTSD to express emotions and experience intimacy in their relationships. In their sample of Vietnam veterans, Riggs and colleagues (1998)

found that avoidance and numbing symptoms of PTSD, and specifically emotional numbing, was associated with fears of intimacy and relationship satisfaction. This finding was also replicated in Cook et al.'s (2004) study of Ex-POWs.

How Can Intimate Others Be Involved in Prevention and Intervention Efforts?

In general, intimate others play prominent roles in the promotion and maintenance of one's health, adaptation to diseases, treatment decision-making, and compliance with treatment. Trauma and its aftermath is no exception to these roles. For example, social support is one of the most strongly and consistently related factors with PTSD (see Brewin et al., 2000), and several studies have shown intimate relationship functioning to be related to individual PTSD treatment outcomes ((Monson et al., 2005; Tarrier et al., 1999).

The U.S. military has been relatively more attentive to the needs of intimate partners and families, and has recognized the role that partners may have in facilitating recovery from trauma exposure and preventing PTSD. The most commonly employed strategies for reducing the negative impact of deployments on military personnel include the provision of pre-deployment preparatory family-based educational materials, psychoeducational interventions, and supportive interventions (see Figley, 1993). Internet-based interventions for military families have received substantial recent interest. These interventions may be particularly effective in reducing barriers (e.g., geographical and social) to intervention.

When PTSD develops, there are now several different forms of conjoint therapy that are being developed specifically for PTSD. Critical Interaction Therapy (D. R. Johnson et al., 1995) focuses on identifying and resolving a "critical interaction" that develops between spouses that is a repetitive conflict covertly associated with trauma experiences. Emotion Focused Therapy, an evidence-based therapy for marital distress, has also been adapted specifically for traumatized couples by Susan Johnson (2002). This therapy is based on adult attachment theory, conceptualizing trauma as a disruption to attachment bonds with an intimate partner. To date, empirical studies have not been conducted to evaluate the outcomes of these therapies for the participants, their relationships, or other relevant measures (e.g., treatment utilization, satisfaction).

Behavioral and cognitive-behavioral conjoint therapies have been submitted to the most empirical scrutiny. In the most rigorous of these studies, Glynn and colleagues (1999) conducted a controlled comparison of individual exposure therapy alone and individual exposure therapy followed by a generic (not PTSD-specific) behavioral conjoint therapy. Although there were no statistically significant differences between the two active therapy conditions in reducing PTSD symptoms, the combined treatment achieved approximately double the reduction in re-experiencing and hyperarousal symptoms, and there were significant improvements in the dyad's communication skills. Monson and colleagues (2004) developed a cognitive-behavioral couple's therapy specifically for PTSD that addresses the cognitive and behavioral mechanisms believed to underlie the association between PTSD and intimate relationship problems. There is a focus in this intervention on psychoeducation, decreasing behavioral and experiential avoidance, improving communication skills, and dyadic cognitive restructuring of cognitions that influence PTSD and relationship functioning. Promising results were found in a small uncontrolled study of the therapy with Vietnam veterans and their wives, and a follow-up controlled trial is planned.

What Can We Conclude About Intimate Relationships and PTSD?

Significant progress has been made in establishing the likely reciprocal and destructive association between PTSD and intimate relationship functioning, and we are beginning to elucidate the factors that account for their connection. Much of the empirical research has been based on male veterans. Thus, future research would profit from a greater inclusion of women and those from different trauma populations. As an example, sexual dysfunction has received relatively less empirical attention, but may be particularly problematic for those who are sexually traumatized because of the nature of the trauma. Moreover, the potential of conjoint-oriented prevention and treatment efforts need further exploration. This work is critical, given the high levels of trauma exposure experienced by military and civilian populations, and the accumulating on the strong influence of intimate relationships on trauma recovery.

REFERENCES

- BREWIN, C.R., ANDREWS, B., & VALENTINE, J.D. (2000). Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology*, 68, 748-766.

ABSTRACTS

BECKHAM, J.C., LYTLE, B.L., & FELDMAN, M.E. (1996). Caregiver burden in partners of Vietnam war veterans with posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology*, 64, 1068-1072. Caregiver burden in 58 partners of Vietnam War veterans with PTSD was examined. The relationship between patient PTSD severity and caregiver burden, as well as the effect of several caregiver and patient variables on caregiver psychological status, was evaluated twice, an average of 8 months apart. Patient symptom severity was positively correlated with caregiver burden. Time 1 cross-sectional analysis indicated that greater caregiver burden was associated with greater caregiver psychological distress, dysphoria, and anxiety. Patient symptom severity also contributed to caregiver psychological distress; financial stress contributed to caregiver dysphoria and trait anxiety. Time 2 cross-sectional analyses essentially replicated the Time 1 findings. A third set of analyses examining change scores indicated that changes in caregiver burden for individuals in the sample positively predicted individual changes in caregiver psychological distress, dysphoria, and state anxiety.

BRAMSEN, I., VAN der PLOEG, H. M., & TWISK, J. W. R. (2002). Secondary traumatization in Dutch couples of World War II survivors. *Journal of Consulting and Clinical Psychology*, 70, 241-245. This study examined whether signs of secondary traumatic stress were present in a community sample of couples who experienced World War II. The authors hypothesized that symptoms of PTSD in either spouse may be predicted not only by his or her own war experiences but also by the war experiences and posttraumatic symptoms of the partner. Approximately 50 years after the end of World War II, 444 couples from a community sample of elderly Dutch citizens answered a questionnaire. A multilevel regression analysis was performed with symptoms of PTSD as the dependent variable. The most important predictors of PTSD symptoms were the number of war events reported by the participant and the current level of PTSD symptoms of his or her spouse. The results lend empirical support to the notion that posttraumatic stress reactions of both members of a couple are not independent from each other. Several explanations of the findings are discussed.

COOK, J. M., RIGGS, D. S., THOMPSON, R., COYNE, J. C., & SHEIKH, J. I. (2004). Posttraumatic stress disorder and current relationship functioning among World War II ex-prisoners of war. *Journal of Family Psychology*, 18, 36-45. This study examined the association of PTSD with the quality of intimate relationships among present-day male World War II ex-prisoners of war (POWs). Ex-POWs had considerable marital stability; those with PTSD were no less likely to be in an intimate relationship. Ex-POWs in an intimate relationship who had PTSD (N = 125) were compared with ex-POWs in a relationship who did not have PTSD (N = 206). Marital functioning was within a range expected for persons without traumatic exposure. Yet, over 30 percent of those with PTSD

reported relationship problems compared with only 11 percent of those without PTSD. Ex-POWs with PTSD reported poorer adjustment and communication with their partners and more difficulties with intimacy. Emotional numbing was significantly associated with relationship difficulties independent of other symptom complexes and severity of PTSD. Implications for clinical practice are discussed.

FIGLEY, C.R., (1993). *Coping with stressors on the home front*. *Journal of Social Issues*, 49, 51-71. The article discusses the psychological impact on families having a member engaged in the Persian Gulf War. It seeks to correct the paucity of attention to the psychological impact on families of having a member engaged in war. The middle section focuses on the stress reactions and the factors that tend to mediate these reactions, such as effective methods of coping. According to the federal government's definitive source, the Persian Gulf War was the most "successful" military campaign in U.S. history. The report goes on to emphasize the relatively little loss of life and the effectiveness of military hardware and tactical operations. The number of career women in the military has increased, as has the number of single parents and dual military career couples. Nearly each military installation has a family support center or office that provides or coordinates child care and family-centered support services such as marriage counseling and family violence prevention and treatment programs. This war provides a useful context for examining families under extraordinarily stressful circumstances. Although brief in duration as a national crisis, the ongoing military mobilization caused extreme hardship on children, marriages, and families of those who participated in some way.

GLYNN, S. M., ETH, S., RANDOLPH, E. T., FOY, D. W., URBATIS, M., BOXER, L., et al. (1999). A test of behavioral family therapy to augment exposure for combat-related posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology*, 67, 243-251. This study tested a family-based skills-building intervention in veterans with chronic combat-related PTSD. Veterans and a family member were randomly assigned to 1 of 3 conditions: (a) waiting list, (b) 18 sessions of twice-weekly exposure therapy, or (c) 18 sessions of twice-weekly exposure therapy followed by 16 sessions of behavioral family therapy (BFT). Participation in exposure therapy reduced PTSD positive symptoms (e.g., reexperiencing and hyperarousal) but not PTSD negative symptoms. Positive symptom gains were maintained at 6-month follow-up. However, participation in BFT had no additional impact on PTSD symptoms.

JOHNSON, D. R., FELDMAN, S. C., & LUBIN, H. (1995). *Critical interaction therapy: Couples therapy in combat-related posttraumatic stress disorder*. *Family Process*, 34, 401-412. Families of Vietnam veterans with PTSD often are beset by numerous difficulties and stresses, with many similarities to and some differences from other kinds of dysfunctional families. Violence, flashbacks and dissociative events, social isolation, rigid rules, gun collections and bunkers in the basement, chaotic employment patterns, and an overall negative, denigrating environment are not uncommon. The treatment of the family and the marital couple in PTSD is receiving greater attention, particularly as the effects of secondary traumatization on family members are being discovered. The purpose of the critical interaction approach is to teach the couple about their interactional process and decrease the blaming; to bring to light the underlying traumatic memories of the veteran and

allow the spouse to engage in the role of witness to the veteran's mourning; to help the veteran differentiate the past from the present and engage in the role of caretaker for the spouse; and then to help the couple problem solve and practice better communication. [Adapted from Text, pp. 401, 402, 405.]

JOHNSON, S. M. (2002). *Emotionally focused couple therapy with trauma survivors: Strengthening attachment bonds*. New York: Guilford Press. This book integrates the recent work on adult attachment, the recent links between attachment and healing delineated in the trauma literature, our evolving understanding of the nature of traumatic stress, and clinical interventions in couple therapy. After an introductory chapter, the first half of the book offers a brief review of the nature of trauma, the nature of attachment, and the relevance of an attachment perspective for trauma survivors and their partners. The second half of the book consists largely of clinical case studies of couple therapy with couples facing particular traumas. The final chapter considers the role of the therapist and the challenge and promise of working with couples facing trauma. [Adapted from Preface]

JORDAN, B. K., MARMAR, C. R., FAIRBANK J. A., SCHLENGER, W. E., KULKA, R. A., HOUGH, R. L., et al. (1992). Problems in families of male Vietnam veterans with posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology*, 60, 916-926. Interviews were conducted with a nationally representative sample of 1,200 male Vietnam veterans and the spouses or coresident partners of 376 of these veterans. The veteran interview contained questions to determine the presence of PTSD and items tapping family and marital adjustment, parenting problems, and violence. The spouse or partner (S/P) interview assessed the S/P's view of these items, as well as her view of her own mental health, drug, and alcohol problems and behavioral problems of school-aged children living at home. Compared with families of male veterans without current PTSD, families of male veterans with current PTSD showed markedly elevated levels of severe and diffuse problems in marital and family adjustment, in parenting skills, and in violent behavior. Clinical implications of these findings are discussed.

ORCUTT, H. K., KING, L. A., & KING, D. W. (2003). Male-perpetrated violence among Vietnam veteran couples: Relationships with veteran's early life characteristics, trauma history, and PTSD symptomatology. *Journal of Traumatic Stress*, 16, 381-390. Using structural equation modeling, we examined the impact of early-life stressors, war-zone stressors, and PTSD symptom severity on partner's reports of recent male-perpetrated intimate partner violence (IPV) among 376 Vietnam veteran couples. Results indicated that several variables demonstrated direct relationships with IPV, including relationship quality with mother, war-zone stressor variables, and PTSD symptom severity. Importantly, retrospective reports of a stressful early family life, childhood antisocial behavior, and war-zone stressors were indirectly associated with IPV via PTSD. One of our 2 war-zone stressor variables, perceived threat, had both direct and indirect (through PTSD) relationships with IPV. Experiencing PTSD symptoms as a result of previous trauma appears to increase an individual's risk for perpetrating IPV. Implications for research and treatment are discussed.

RIGGS, D. S., BYRNE, C. A., WEATHERS, F. W., & LITZ, B. T. (1998). The quality of the intimate relationships of male Vietnam veterans: Problems associated with posttraumatic stress disorder. *Journal of Traumatic Stress*, 11, 87-101. This study exam-

ined the quality of the intimate relationships of male Vietnam veterans. Heterosexual couples in which the veteran had PTSD (PTSD; $n = 26$) were compared to couples in which the veteran did not have PTSD ($n = 24$). Over 70 percent of the PTSD veterans and their partners reported clinically significant levels of relationship distress compared to only about 30 percent of the non-PTSD couples. Relationship difficulties appeared to encompass a wide range of areas, with PTSD veterans and their partners reporting that they had more problems in their relationships, more difficulties with intimacy, and had taken more steps toward separation and divorce than the non-PTSD veterans and their partners. The degree of relationship distress was correlated with the severity of veterans' PTSD symptoms, particularly symptoms of emotional numbing. Research and clinical implications of the results are discussed.

SAVARESE, V. W., SUVAK, M. K., KING, L. A., & KING, D. W. (2001). Relationships among alcohol use, hyperarousal, and marital abuse and violence in Vietnam veterans. *Journal of Traumatic Stress, 14*, 717-732. Alcohol use (frequency and quantity) and the hyperarousal feature of PTSD were examined in relation to male-perpetrated marital abuse and violence using data from 376 couples who participated in the National Vietnam Veterans Readjustment Study. Veterans' self-reported hyperarousal was significantly associated with partners' report of physical violence and psychological abuse toward her. Differential relationships were found between veterans' self-reported drinking frequency and drinking quantity and the outcomes; of the two components, only the average quantity consumed per occasion was independently related to husband-to-wife violence. Moreover, a complex interaction emerged between hyperarousal and the two dimensions of alcohol consumption in predicting violence, with the relationship between hyperarousal and violence varying as a function of both drinking frequency and drinking quantity.

TAFT, C. T., PLESS, A. P., STALANS, L. J., KOENEN, K. C., KING, L. A., & KING, D. W. (2005). Risk factors for partner violence among a national sample of combat veterans. *Journal of Consulting and Clinical Psychology, 73*, 151-159. In this study, the authors identified potential risk factors for partner violence perpetration among a subsample ($n = 109$) of men who participated in a national study of Vietnam veterans [National Vietnam Veterans Readjustment Study (NVVRS)]. [Data were derived from the National Survey of the Vietnam Generation (NSVG)]. Partner violent (PV) men with PTSD were compared with PV men without PTSD and nonviolent men with PTSD on family-of-origin variables, psychiatric problems, relationship problems, and war-zone factors. PV men with PTSD were the highest of the 3 groups on every risk factor other than childhood abuse. Group contrasts and a classification tree analysis suggest some potential markers and mechanisms for the association between PTSD and partner violence among military veterans and highlight the need for theory development in this area of inquiry.

WHISMAN, M. (1999). Marital dissatisfaction and psychiatric disorders: Results from the National Comorbidity Survey. *Journal of Abnormal Psychology, 108*, 701-706. The association between marital dissatisfaction and 12-month prevalence rates of DSM-III-R Axis I psychiatric disorders was examined in married respondents from the National Comorbidity Survey ($N = 2,538$). Results indicate that marital dissatisfaction was associated with the presence of any disorder, any mood disorder, any anxiety disorder, and any substance-use disorder; dissatisfaction was

also associated with 7 of 12 specific disorders for women and 3 of 13 specific disorders for men. To evaluate the unique association between marital dissatisfaction and psychiatric disorders, analyses were conducted controlling for comorbid disorders. Covariance analyses generally attenuated the bivariate associations between marital dissatisfaction and specific disorders and groupings of disorders. Results indicate that marital dissatisfaction was uniquely related to major depression and PTSD for women and dysthymia for men.

CITATIONS

BARCUS, R. (1997). Partners of survivors of abuse: A men's therapy group. *Psychotherapy, 34*, 316-323.

This article describes a therapy group for the male partners of women in treatment for sexual or physical abuse. The partners came to see themselves as the secondary victims of the original abuse as their relationships and families were disturbed for long periods during their wives' treatment. The group validated the men's experiences, gave them an emotional outlet, educated them about their wives' dynamics, and assisted them in sustaining their relationships. This article presents a typical profile and specific outcomes gathered from 16 participants over a 4 1/2-year period and describes our therapeutic approach.

BYRNE, C. A., & RIGGS, D. S. (1996). The cycle of trauma: Relationship aggression in male Vietnam veterans with symptoms of posttraumatic stress disorder. *Violence and Victims, 11*, 213-225.

This study examined the association between symptoms of PTSD in male Vietnam veterans and their use of aggressive behavior in relationships with intimate female partners. 50 couples participated in the study. Veterans reported on their PTSD symptoms, and veterans and partners completed measures assessing the veterans' use of physical, verbal, and psychological aggression during the preceding year as well as measures of their own perceptions of problems in the relationship. Results indicated that PTSD symptomatology places veterans at increased risk for perpetrating relationship aggression against their partners. The association between veterans' PTSD symptoms and their use of aggression in relationships was mediated by relationship problems. Clinical implications of these findings and suggestions for future research are discussed.

CHRYSOS, E. S., TAFT, C. T., KING, L. A., & KING, D. W. (2005). Gender, partner violence, and family functioning among a sample of Vietnam veterans. *Violence and Victims, 20*, 549-559.

This study examined partner violence and perceived family functioning among a sample of 298 male veterans and their female partners. Partner violent men were higher than partner violent women on measures of partner violence severity, although differences did not reach statistical significance. Among couples experiencing unidirectional violence, female victims of partner violence reported significantly poorer family functioning than male victims of partner violence. Data appear to suggest that the effects of male-perpetrated partner violence on perceived family functioning may be larger than that of female-perpetrated partner violence.

CALHOUN, P. S., BECKHAM, J. C., & BOSWORTH, H. B. (2002). Caregiver burden and psychological distress in partners of veterans with chronic posttraumatic stress disorder. *Journal of Traumatic Stress, 15*, 205-212.

Caregiver burden and psychological distress were examined in a sample of 71 partners of Vietnam War combat veterans. Partners of patients ($n = 51$) diagnosed with PTSD experienced more caregiver burden and had poorer psychological adjustment than did partners of veterans without PTSD ($n = 20$). Among PTSD caregivers, patient PTSD symptom severity and level of interpersonal violence were associated with increased caregiver burden. When accounting for patient PTSD symptom severity, hostility, presence of major depression, level of interpersonal violence, and health complaints, only PTSD severity was uniquely associated with caregiver burden. Caregiver sociodemographic factors including age, race, education, and the availability of social support, did not moderate the relationship between PTSD symptom severity and caregiver burden. Caregiver burden was strongly related to spouse psychological adjustment.

CASELLI, L. T., & MOTTA, R. W. (1995). The effect of PTSD and combat level on Vietnam veterans' perceptions of child behavior and marital adjustment. *Journal of Clinical Psychology*, 51, 4-12.

This study empirically investigated the effects of PTSD and combat level on Vietnam veterans' perceptions of their children's behavior, as well as its effects on their marital adjustment. Results indicated that the predictor variables of PTSD and combat level together explained 33.6 percent of the variance in perceived child behavior problems ($p < .001$) and 51.8 percent of the variance in marital adjustment ($p < .001$). In addition, PTSD and combat level, when observed together, reliably predicted internalizing and externalizing behavior problems in addition to 4 specific areas of marital adjustment. When observed individually, however, it was shown that child behavior problems and marital adjustment were predicted primarily by PTSD, rather than combat level.

FOLLETTE, V. M., & PISTORELLO, J. (1995). *Couples therapy*. In C. CLASSEN & I. D. YALOM (Eds.), *Treating women molested in childhood*. San Francisco: Jossey-Bass.

The overall focus of this chapter is on issues that frequently arise in a relationship in which one of the partners is a survivor of child sexual abuse. After a brief examination of some of the rationale for couples therapy with survivors, we move on to a general description of our treatment approach [which is based on Acceptance and Commitment Therapy (ACT)]. The materials discussed in this chapter are a product of our research and clinical experiences with individual, marital, and group psychotherapy for women sexually abused as children.

GIMBEL, C., & BOOTH, A. (1994). Why does military combat experience adversely affect marital relations? *Journal of Marriage and the Family*, 56, 691-703.

Using data on 2,101 Vietnam veterans, we investigate the ways in which combat decreases marital quality and stability. We test three models: (a) factors that propel men into combat also make them poor marriage material; (b) combat causes problems such as post-traumatic stress symptoms or antisocial behavior that increase marital adversity; and (c) combat intensifies premilitary stress and antisocial behavior that then negatively affect marriages. All three models were supported. Combat creates stress and antisocial behavior, but only antisocial behavior has direct effects on marriage; all other effects are indirect. [Author Abstract] KEY WORDS: antisocial behavior, combat, divorce, marriage, PTSD, Vietnam War.

GLENN, D. M., BECKHAM, J. C., FELDMAN, M. E., KIRBY, A. C., HERTZBERG, M. A., & MOORE, S. D. (2002). Violence and hostility among families of Vietnam

veterans with combat-related posttraumatic stress disorder. *Violence and Victims*, 17, 473-489.

A small sample of veterans with PTSD, their partners, and children reported moderate-low to moderate-high levels of violent behavior. In addition, partner and veteran hostility scores were elevated relative to gender and age matched norms. Partners also reported heightened levels of psychological maltreatment by veterans. Veterans' combat exposure was positively correlated with hostility and violent behavior among children but unrelated to partner variables. Veterans' reports of PTSD symptoms were positively associated with reports of hostility and violence among children, and hostility and general psychological distress among partners.

GOLD, J. I., TAFT, C. T., KEEHN, M. G., KING, D. W., KING, L. A., & SAMPER, R. E. (in press). PTSD symptom severity and family adjustment among female Vietnam veterans. *Military Psychology*.

This study examined relationships between posttraumatic stress disorder (PTSD) symptom severity and several family adjustment variables among a sample of 89 female Vietnam veterans and their male relationship partners. Findings revealed associations between PTSD symptom severity and measures of marital adjustment, family adaptability, family cohesion, parenting satisfaction, and psychological abuse. Results suggest that the presence of PTSD symptomatology may have important implications with regard to the family life of female Vietnam veterans.

MATSAKIS, A. (1996). *Vietnam wives: Facing the challenges of life with veterans suffering posttraumatic stress* (2nd ed.). Baltimore: The Sidran Press.

This book is written for the wives of Vietnam veterans. It explains the causes and symptoms of PTSD, with emphasis on the effects of the disorder upon family life, and suggests therapeutic measures for veterans and their families.

MONSON, C. M., RODRIGUEZ, B. F., & WARNER, R. (2005). Cognitive-behavioral therapy for PTSD in the real world: Do interpersonal relationships make a real difference? *Journal of Clinical Psychology*, 61, 751-761.

The goal of this effectiveness study was to investigate the role of pre-treatment interpersonal relationship functioning in two forms of group cognitive-behavioral treatment (CBT) for veterans with PTSD. Analysis of data from 45 veterans who completed either trauma- or skills-focused CBT indicated no overall differences between the two treatments in PTSD symptomatology, alcohol abuse, or violence perpetration at four months post-treatment. However, there was a stronger inverse relationship between intimate relationship functioning and violence outcomes in the trauma-focused group versus the skills-focused group. While no differences in violence outcomes were found between the treatments at poorer levels of pre-treatment intimate relationship functioning, those receiving trauma-focused treatment with better pre-treatment intimate relationships reported less violence. Extended relationship functioning and violence outcomes were less strongly associated in the trauma-focused group versus the skills-focused group. The theoretical implications of these results, as well as the clinical opportunities to improve CBT for PTSD by capitalizing on patients' relationships, are discussed.

NELSON, B. S., & WRIGHT, D. W. (1996). Understanding and treating post-traumatic stress disorder symptoms in female partners of veterans with PTSD. *Journal of Marital and Family Therapy*, 22, 455-467.

Studies of PTSD have focused primarily on veterans, generally ignoring their female partners (wives or girlfriends). Recently,

clinicians have begun to identify PTSD-like symptoms in these female partners, but the literature describing this phenomenon has been limited. This paper addresses the fact that women in long-term relationships with veterans suffering from PTSD commonly experience PTSD-like psychiatric symptoms themselves. These women's symptoms and issues they face in their relationships with their veteran partners are described. Conceptual explanations of and causal factors for these women's symptoms are presented, followed by discussion of treatment approaches and issues.

SOLOMON, Z., MIKULINCER, M., FREID, B., & WOSNER, Y. (1987). **Family characteristics and posttraumatic stress disorder: A follow-up of Israeli combat stress reaction casualties.** *Family Process*, 26, 383-394.

This study assessed the role of family status and family relationships in the course of combat-related PTSD. The sample consisted of 382 Israeli soldiers who suffered a combat stress reaction episode during the 1982 Lebanon War. Results showed that one year after the war married soldiers had higher rates of PTSD than did unmarried soldiers. Furthermore, higher rates of PTSD were associated with low expressiveness, low cohesiveness, and high conflict in the casualties' families. Theoretical, methodological, and clinical implications are discussed.

TARRIER, N., SOMMERFIELD, C., & PILGRIM, H. (1999). **Relatives' expressed emotion (EE) and PTSD treatment outcome.** *Psychological Medicine*, 29, 801-811

Background: Expressed emotion (EE) is a measure that has been used to assess the quality of the relationship between patient and their key relative. It has been shown to be strongly predictive of clinical outcome in a range of psychiatric and medical disorders. This study investigated the effect of EE on treatment outcome in chronic PTSD. **Methods:** A prospective design was adopted. The key relatives of 31 PTSD patients participating in a treatment trial comparing imaginal exposure with cognitive therapy were interviewed and rated on EE prior to treatment allocation. The effect of EE on post-treatment clinical outcomes was assessed. **Results:** 16 patients (52 percent) had high EE and 15 (48 percent) low EE relatives. Patients with high EE relatives showed lesser change scores on the main outcome variable of the trial, the total CAPS score, and on all the secondary outcome variables than those with low EE relatives. Using different multiple regression models the EE scales of criticism and hostility predicted just under 20 percent of the outcome variance. These two scales were highly correlated and criticism marginally predicted the greatest variance (19.7 percent). **Conclusions:** The results highlight the importance of the quality of the patient's social environment in influencing their response to cognitive and behavioural treatments.

WESTERINK, J., & GIARRITANO, L. (1999). **The impact of posttraumatic stress disorder on partners and children of Australian Vietnam veterans.** *Australian and New Zealand Journal of Psychiatry*, 33, 841-847.

Objective: This study explored the emotional and physical health of a group of families of Australian Vietnam veterans suffering PTSD. The aim was to study the impact of PTSD upon the families of the sufferers. **Method:** The families of a random sample of Vietnam veterans receiving treatment at a specialist PTSD Unit were invited to participate in this study. Partners of the veterans and children over the age of 15 years were eligible to participate. Four self-report psychometric inventories were administered assessing psychological distress, social climate within their families, self-esteem, and a range of lifestyle issues, including physical health. A control group, consisting of a sample of volunteers,

was also surveyed. **Results:** The partners of the Vietnam veterans showed significantly higher levels of somatic symptoms, anxiety and insomnia, social dysfunction, and depression than the control group. They reported significantly less cohesion and expressiveness in their families and significantly higher levels of conflict. The partners also had significantly lower levels of self-esteem. The children of the veterans reported significantly higher levels of conflict in their families. However, the children showed no significant differences on measures of psychological distress and self-esteem from their matched counterparts. **Conclusion:** These findings support overseas studies that indicate that the families of PTSD sufferers are also impacted by the disorder. In this study, the families of Australian Vietnam veterans experienced more conflict and their partners were significantly more psychologically distressed (i.e. somatic symptoms, anxiety, insomnia, social dysfunction, depression, and low self-esteem) than a matched control group.

NCPTSD Women's Health Sciences Division: Current Research and Activities

Heidi La Bash, Suzanne Pineles, Candice M. Monson, &
Patricia A. Resick

The Women's Health Sciences Division (WHSD) is celebrating over a decade of pioneering research on women's issues in trauma and PTSD. Recently, there have been a number of important research initiatives, completed projects, and staff additions that have engendered excitement and interest in novel areas of inquiry.

Dr. Patricia Resick, a leader in the field of PTSD research, became Director of the Division about two years ago. Her research interests include treatment outcome research on cognitive processing therapy (CPT) for PTSD, dissemination of treatments into practice settings, and risk factors impeding recovery from traumatic events. She has focused much of her research on interpersonal violence, especially sexual assault and domestic violence. Dr. Resick recently completed data collection on a dismantling study of CPT and a long term follow-up of her earlier trial comparing CPT with prolonged exposure. She is currently developing a CPT implementation project in VISN 1.

Dr. Candice Monson joined the WHSD as Deputy Director a year ago. Dr. Monson's primary research interest is developing, testing, and disseminating treatments for PTSD. Her recently completed randomized controlled trial of CPT for chronic military-related PTSD yielded some of the most optimistic treatment outcomes in this population. She continues to develop and test a Cognitive-Behavioral Couple's Therapy for PTSD, and investigate gender differences in interpersonal violence perpetration.

Other research staff include Drs. Eve Davison, Lisa Najavits, Suzanne Pineles, Jillian Shipherd, Amy Street, and Dawne Vogt.

Dr. Davison's research lies in the area of aging and trauma, and she is currently researching late-life stress symptomatology in midlife and older women with early life histories of sexual trauma as part of an NIH-funded career development award. More generally, she is interested in how trauma history plays out in the context of normative aging stressors, and the pathways through which traumatic experiences may contribute not only to problems but also to resilience and wisdom in old age.

Dr. Najavits has received a variety of NIH research grants to develop and evaluate new psychotherapies for dual diag-

nosis populations, including PTSD and substance use disorders. Her primary research interests are PTSD and substance use disorders, psychotherapy outcome trials, evaluating differences in clinicians' performance, and gender differences.

Dr. Pineles's primary research interest is in the area of cognitive processes involved in maintaining PTSD, with a focus on attentional biases in PTSD. Additionally, she is interested in the psychophysiology and neurobiology of PTSD and is currently designing studies assessing the relationship between menstrual phase and psychophysiological reactivity in women with PTSD.

Dr. Shipherd's current research focuses on the role of attentional processes and thought suppression in the psychopathology of PTSD and the treatment of comorbid chronic pain and PTSD, with particular emphasis on the role of gender. Dr. Shipherd is also collaborating with Dr. Resick to expand upon a longitudinal study of Marine recruits begun by founding WHSD director, Jessica Wolfe.

Dr. Street's primary research interests focus on the correlates and consequences of interpersonal victimization including sexual harassment, sexual assault, and intimate partner violence. Dr. Street also has interests in identifying factors associated with revictimization. She has recently completed data collection for an NIH-funded investigation of impaired affect regulation and threat evaluation as risk factors for exposure to traumatic events.

Dr. Vogt's research interests include barriers to health care for women veterans and deployment risk and resilience factors. She recently developed and validated a computerized educational program to enhance VHA staff awareness of women veterans and their VA healthcare needs. Dr. Vogt also co-authored the Deployment Risk and Resilience Inventory (DRRI), and is planning to conduct further validation of the DRRI among Iraq War veterans.

The WHSD is making substantial contributions toward understanding risk for traumatic events, the etiology and maintenance of PTSD, and developing effective treatments for PTSD in general. As the face of the military changes, so do the experiences and roles of women. The WHSD is committed to studying the effect of these experiences on women who are serving or have served in the military. WHSD is also committed to advancing research that improves the health and well-being of women in the larger community.

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